

THE TAXONOMIC POSITION OF THREE NORTH-WEST INDIAN
SPECIES COMMONLY REFERRED TO THE GENUS
PYRAUSTA SCHRANK (LEPIDOPTERA: PYRALIDAE)

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Abstract.—Three species of subfamily Pyraustinae referable to the unrevised genus *Pyrausta* Schrank were collected from North-West India between November 1972 and November 1974. A critical examination of these species leads to the erection of a new genus *Rattana* with type species *P. euryphaea* Meyrick and the description of a new species, *Coclebotys mutuuri*. The characterization of the new genus and the description of the new species are recorded.

Introduction

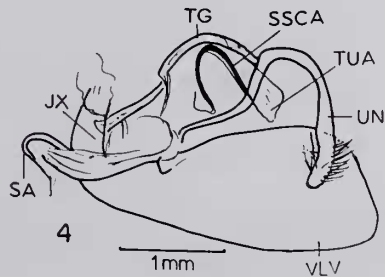
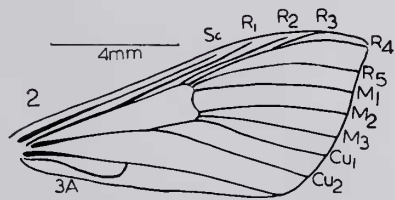
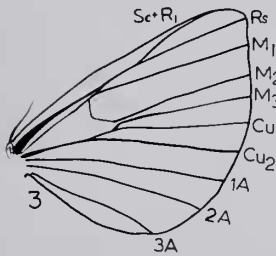
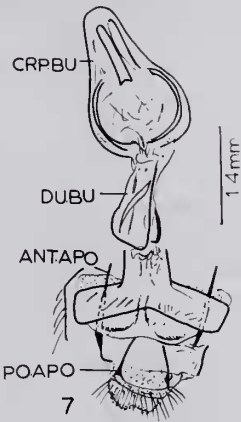
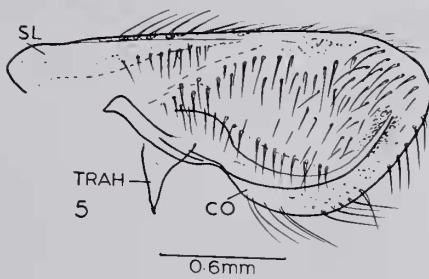
The authors collected ninety two species of subfamily Pyraustinae from North-West India between November 1972 to November 1974. Out of these, three species, as followed through Hampsonian key (1896, 1898), are referable to the old *Pyrausta* Schrank. This genus, however, has been recently found to contain very heterogeneous material and has been divided into two sections, with and without a frenulum hook, restricting genus *Pyrausta* to the section with a frenulum hook and with *P. cingulata* (Linnaeus) as its type species. Munroe (1950, 1958, 1958a) and Munroe and Mutuura (1968c, 1969a, 1969c, 1970a, 1971) have revised the other section and erected several new genera based on other species.

One of three species in our possession, *machoeralis* Walker is referable to the genus *Pyrausta*, as restricted by Munroe (1950). The second species

Abbreviations

IA, First anal vein; 2A, Second anal vein; 3A, third anal vein; ANT.APO, Anterior apophyses; CO, Costa; CRN, Cornuti; CRP.BU, Corpus bursae; Cu₁, First Cubital vein; Cu₂, Second cubital vein; DU.BU, Ductus bursae; JX, Juxta; M₁, First median vein; M₂, Second median vein; M₃, Third median vein; PO.APO, Posterior apophyses; R₁, First radial vein; R₂, Second radial vein; R₃, Third radial vein; R₄, Fourth radial vein; R₅, Fifth radial vein; Rs, Radial sector; SA, Saccus; Sc, Subcosta; Sc + R₁, Stalk of Sc and R₁; SIG, Signum; SL, Sacculus; SSCA, Subscaphium; TG, Tegmen; TRAH, Half transtilla; TU.A, Tuba analis; UN, Uncus; VIN, Vinculum; VLV, Valva.

Figs. 1-7. *Rattana euryphaea*, 1. photograph of adult; 2. forewing; 3. hindwing; 4-6. different parts of male genitalia; 7. female genitalia.



is clearly congeneric with *coclesalis* Walker the type species of the monotypic genus *Coclebotys* (Munroe and Mutuura, 1969c) but is distinctly different from the former and also from all the species described under *Pyrausta* Schrank, and hence a new species. The third species *Pyrausta euryphaea* Meyrick is also referable to the section lacking the frenulum hook but it does not go under any of the genera erected or revalidated by Munroe (1950, 1958, 1958a) and Munroe and Mutuura (1968, 1968a, 1968b, 1968c, 1969, 1969a, 1969b, 1969c, 1970, 1970a, 1971, 1971a). Accordingly a new genus *Rattana* with *Pyrausta euryphaea* Meyrick (new name for *Botys signatalis* Walker, preoccupied) as its type species is proposed. The diagnosis of the genus *Rattana* and a complete description of *Coclebotys mutuuri*, n. sp., are here presented. The terminology for different parts of genitalia has been adopted from Klots (1970).

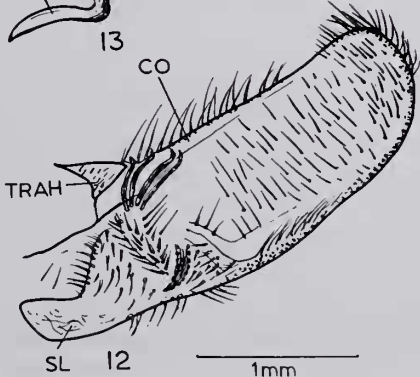
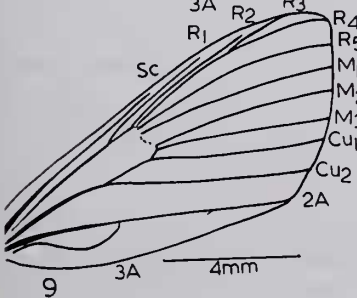
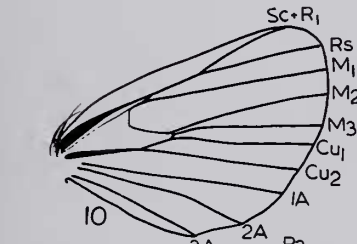
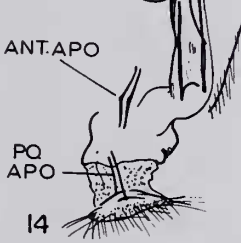
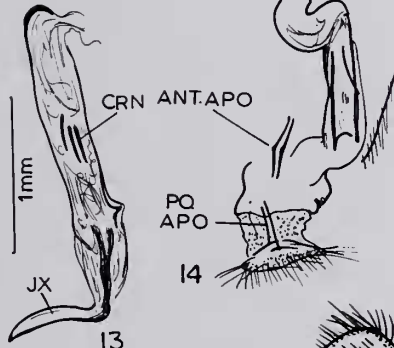
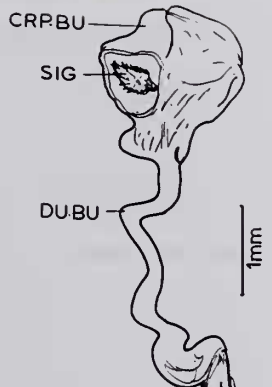
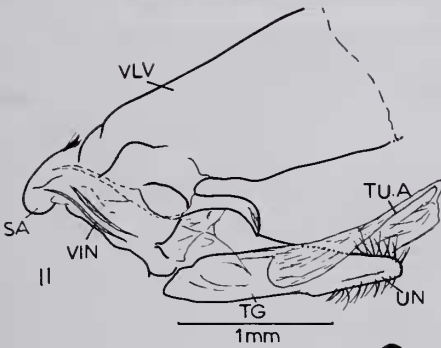
Rattana new genus
(Figs. 1-7)

Type species: *Pyrausta euryphaea* Meyrick Exot. Micr., 4, p. 318 (1932).

Labial palpus porrect and straight; third joint covered with scales from second segment. Maxillary palpus strongly dilated with scales. Frons rounded. Antenna simple, shorter than fore wing. Fore wing with vein R_1 arising from very well before anterior angle of cell; R_2 approximated to R_{3+4} ; R_5 curved and approximated to R_{3+4} ; M_2 , M_3 and Cu_1 from posterior angle of cell. Hind wing with outer margin not excised below apex; discal cell one-third the length of cell; Rs anastomosing with $Sc + R_1$ beyond cell for some distance; M_2 and M_3 closely approximated at base for some distance; Cu_1 from lower angle of cell; frenulum hook absent.

Male genitalia.—Uncus very long, strongly curved, with basal half narrow and distal half dilated and spoon-shaped, dorso-distal and ventro-distal surfaces fringed with setae, extreme tip naked; gnathos absent; tuba analis much shorter than uncus; scaphium not developed; subscaphium strongly sclerotized, supporting tuba analis throughout its length; tegumen arched, roughly as broad as long and strongly sclerotized; vinculum produced anteriorly into a well sclerotized saccus; saccus short. Valva long, the costal margin greatly arched and the saccular margin straight, rounded distally; costa broadly inflated, supported by thin sclerotized lines; sacculus conspicuous; harpe missing. Transtilla with each half sharply triangular, being

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broad at costa and pointed at apex, weakly sclerotized; juxta more or less rectangular. Aedeagus long, broad at anterior end and slightly narrow posteriorly; vesica armed with two or three spinose patches.

Female genitalia.—Corpus bursae exceptionally reduced, more or less irregular in outline and completely membranous; signum absent; ductus bursae quite long, with a membranous dilation near anterior end and posterior portion sclerotized; anterior apophyses long, each with a triangular thickening near base, base sharply pointed; posterior apophyses short. Ovipositor lobes narrow, setose with long and short setae.

Coclebotys mutuuri n. sp.

(Figs. 8–14)

Holotype.—♀, Uttar Pradesh: Dehra Dun, 21st September, 1973 (H. S. Rose), from fluorescent tube.

Allotype.—♂, same data. Holotype pinned and allotype slides (i.e. wings and genitalia) in Zoological Museum, Entomological Section, Department of Zoology, Panjab University, Chandigarh (India).

Head.—Vertex covered with light ochreous scales and with a whitish tinge; frons oblique and somewhat flattened, smoothly scaled with ochreous scales, scales along inner margins of eyes white. Antenna filiform, shorter than fore wing; scape covered with light brown scales; flagellum with weak annulations on upper surface, the lower almost naked, slightly compressed in male. Eye large, with a row of ochreous scales behind. Ocellus well developed. Labial palpus porrect, exceeding head by less than length of latter; first segment and a small basal portion of second segment on ventral surface covered with white scales, the remainder being fulvous scaled; base of third segment hidden by scales of second segment. Maxillary palpus prominent, strongly dilated with brownish scales distally. Proboscis large, covered with white scales at base. Posterior end of head adorned with long and erect ochreous brown scales, the latter surrounding the white ones.

Thorax.—Ochreous brown dorsally; white ventrally.

Forewing.—Costal margin curved near apex; apex rounded and narrowly acute; termen oblique and somewhat curved; tornus obtuse; anal margin curved near base. Ground color ochreous brown, with costal and outer area slightly darker; a wavy antemedial line from costa to inner margin; a discocellular speck present; a postmedial line from anterior to posterior margin, strongly excurved between M_1 and Cu_1 ; marginal fringe ochreous brown. Discal cell slightly less than half the length of wing. R_1 from before anterior angle of cell; R_2 from upper angle of cell, approximated to R_{3+4} ; R_3

and R_4 stalked; R_5 not approximated to R_{3+4} ; M_1 from somewhat behind upper angle. M_2 , M_3 and Cu_1 from lower angle of cell, fairly spaced around the angle; Cu_2 from cell at two-third the length of cell; 3A making loop with 2A at base.

Hindwing.—Anterior margin straight; apex, termen and tornus rounded. Ground color ochreous brown; outer-marginal area with fuscous suffusion; a postmedial line from R_s to vein Cu , excurved between M_2 and Cu_2 ; marginal fringe ochreous brown. Discal cell less than half the length of wing; discocellular straight and oblique; cell closed. M_2 , M_3 and Cu_1 from posterior angle of cell; M_2 and M_3 closely approximated at base; Cu_2 from cell at two-third the length of cell; three anals present.

Legs.—Clothed with white scales; tibia of prothoracic leg covered with fuscous scales; outer anterior and posterior spurs of male hind tibia minute; outer spur of mid tibia of male and all outer spurs of female about two-third the length of inner spurs.

Abdomen.—Ochreous brown dorsally; pure white ventrally.

Male genitalia.—Uncus relatively reduced, somewhat triangular and rounded at extreme end, heavily setose with anteriorly directed setae; gnathos present; tuba analis longer than uncus; scaphium not developed; subsca-phium thin strap-like; tegumen parallel sided posteriorly and well sclerotized; vinculum produced anteriorly into a short saccus. Valva long and of moderate width, costal and saccular margins almost parallel, tip unsymmetrically rounded; costa weakly inflated; sacculus differentiated and carrying a rounded setose lobe, the latter partly underlying the basal part of harpe; harpe represented by a setose lobe, bearing four dorsally directed scale-like strong setae. Transtilla relatively reduced, with each half triangular; juxta moderately stout, with its walls well sclerotized. Aedeagus long and slender, walls well sclerotized, with a short conical projection from a strap-like thickening of aedeagal wall; vesica with three well defined cornuti, along with strap-like thickenings at posterior end.

Female genitalia.—Corpus bursae bag-like and with an irregular boundary; signum with its margin serrate, lateral angles somewhat produced and medial angles rounded; ductus bursae fairly long, strongly sclerotized at the proximal portion; anterior apophyses long and thickened near middle; posterior apophyses short and stout; ovipositor with relatively narrow lobes, each bearing macro and micro setae.

Alar expanse.—Male: 28 mm. Female: 22 mm. to 27 mm.

Paratypes.—5 ♀♀, same data as type, collected between 1.9.1973 to 21.9.1973. (Zoological Museum, Entomological Section, Department of Zoology, Panjab University, Chandigarh, India.)

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